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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,544	11/20/2003	Teresa H. Meng	MR2919-9/C	5671

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EXAMINER	
HAILE, FEBEN	
ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,544	MENG, TERESA H.	
	Examiner	Art Unit	
	Feben M. Haile	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *43-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *43-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In view of applicant's amendment filed September 17, 2007, the status of the application is still pending with reference to claims 43-54.

2. The amendment filed is insufficient to overcome the rejection of claims 43-54 based upon based upon newly discovered reference I et al. (US 6,088,335) because the material added to the claims fail to further clarify a distinction between the Applicants invention and the cited reference, thus the subject matter is not patentable.

3. The Examiner acknowledges the filing of a terminal disclaimer, thus the nonstatutory double patenting rejection of claims 43-54 is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 43-54 rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff (US 6,449,463), hereinafter referred to as Schiff, in view of Javitt et al. (US 5,805,585), hereinafter referred to as Javitt, in view of reference I et al. (US 6,088,335), hereinafter referred to as I.

Regarding claim 43, Schiff discloses a first transceiver **(figure 1 unit 102; a transceiver)**; and a second transceiver **(figure 1 unit 104; a transceiver)**, the second transceiver including: second means for receiving the first data **(figure 3 unit 110; a receiver in the transceiver 104)**; second means for sensing a received power level of the received data **(figure 3 unit 314; a measurement element in the transceiver 104)**.

Schiff fails to explicitly suggest the first transceiver including means for transmitting data at a first power level and a first data rate to said second transceiver, second transceiver including means for transmitting second data at a second power level and a second data rate to said first transceiver; and second means for determining the second data rate at which to transmit the second data, said second data rate determined based upon the received power level of the received data and being different from the first data rate.

Javitt teaches a communication system **(column 3 lines 1-8)** including a transmitting unit sending a signal to a receiving unit in a first communication mode with a first power level and a first data rate **(column 4 lines 29-41)** and changing to a second communication mode with a second power level and a second data rate **(column 4 lines 42-52)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the multi-rate packet data method operable to change communications modes taught by Javitt into the variable loop power control

transceiver system disclosed by Schiff. The motivation for such a modification is increasing system performance and efficiency.

Schiff, Javitt, and/or their combination fail to explicitly suggest the second data rate to be adaptively adjustable responsive to a distance between first and scone said transceivers.

I teaches a CDMA system **(figure 1)** including a mobile station and base station communicating **(figure 4)** such that data rates vary as a function of a distance the mobile station is to the base station **(figure 9 and column 10 lines 46-55)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method suggest by I into the variable loop power control transceiver system disclosed by Schiff as modified by the multi-rate packet data method operable to change communications modes taught by Javitt. The motivation for such a modification is a reduction in interference, thus increasing system capacity.

Regarding claim 44 Schiff discloses a first transceiver and a second transceiver **(figure 1 units 102 and 104)**; receiving the data at the second transceiver **(figure 3 unit 110; a receiver in the transceiver 104)**; sensing the received power level of the received data **(figure 3 unit 314; a measurement element in the transceiver 104)**; receiving the other data at the first transceiver **(figure 2 unit 108; a receiver in the transceiver 102)**.

Schiff fails to explicitly suggest transmitting data at a first power level and a first data rate; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power

level of the received data; and transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver.

Javitt teaches a communication system **(column 3 lines 1-8)** including a transmitting unit sending a signal to a receiving unit in a first communication mode with a first power level and a first data rate **(column 4 lines 29-41)** and changing to a second communication mode with a second power level and a second data rate **(column 4 lines 42-52)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the multi-rate packet data method operable to change communications modes taught by Javitt into the variable loop power control transceiver system disclosed by Schiff. The motivation for such a modification is increasing system performance and efficiency.

Schiff, Javitt, and/or their combination fail to explicitly suggest the second data rate to be adaptively adjustable responsive to a distance between first and scone said transceivers.

I teaches a CDMA system **(figure 1)** including a mobile station and base station communicating **(figure 4)** such that data rates vary as a function of a distance the mobile station is to the base station **(figure 9 and column 10 lines 46-55)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method suggest by I into the variable loop power control transceiver system disclosed by Schiff as modified by the multi-rate packet data

method operable to change communications modes taught by Javitt. The motivation for such a modification is a reduction in interference, thus increasing system capacity.

Regarding claim 45, Javitt discloses wherein the second power level is different than the first power level **(figure 1 and column 4 lines 8-15; communication mode 12 has a greater power level than communication mode 11)**.

Regarding claim 46, Schiff discloses a first transceiver and a second transceiver comprising the steps of **(figure 1 units 102 and 104)**: receiving the data at the second transceiver **(figure 3 unit 110; a receiver in the transceiver 104)**; sensing the received power level of the received data **(figure 3 unit 314; a measurement element in the transceiver 104)**; and further including the step of: receiving the other data at the first transceiver **(figure 2 unit 108; a receiver in the transceiver 102)**.

Schiff fails to explicitly suggest transmitting data at a first power level and a first data rate from a first transceiver to a second transceiver; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data; and transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver.

Javitt teaches a communication system **(column 3 lines 1-8)** including a transmitting unit sending a signal to a receiving unit in a first communication mode with a first power level and a first data rate **(column 4 lines 29-41)** and changing to a second communication mode with a second power level and a second data rate **(column 4 lines 42-52)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the multi-rate packet data method operable to change communications modes taught by Javitt into the variable loop power control transceiver system disclosed by Schiff. The motivation for such a modification is increasing system performance and efficiency.

Schiff, Javitt, and/or their combination fail to explicitly suggest the second data rate to be adaptively adjustable responsive to a distance between first and scone said transceivers.

I teaches a CDMA system **(figure 1)** including a mobile station and base station communicating **(figure 4)** such that data rates vary as a function of a distance the mobile station is to the base station **(figure 9 and column 10 lines 46-55)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method suggest by I into the variable loop power control transceiver system disclosed by Schiff as modified by the multi-rate packet data method operable to change communications modes taught by Javitt. The motivation for such a modification is a reduction in interference, thus increasing system capacity.

Although Javitt suggests the transmitting unit sending an escape sequence to instruct the receiving unit to change communications modes, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the step of determining occurs without the occurrence of a specific request for a data rate change. It has been held that providing an automatic means to replace manual

activity, which accomplishes the same result, involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Regarding claim 47, Schiff discloses wherein the second power level is different than the first power level **(figure 1 and column 4 lines 8-15; communication mode 12 has a greater power level than communication mode 11)**.

Regarding claim 48, Schiff discloses the limitations of the base claims and further suggests adjusting the power by a predetermined amount depending on the measured received power of a signal **(column 6 lines 14-31)**.

At the time the invention was made, it would have been obvious to one having ordinary skill in the art that the rate at which data can be transmitted is directly proportional to the amount of power. Therefore Schiff explicitly suggests wherein the second data rate is chosen from one of a plurality of predetermined data rates

Regarding claim 49, Schiff discloses the limitations of the base claims and further suggests adjusting the power by a predetermined amount depending on the measured received power of a signal **(column 6 lines 14-31)**.

At the time the invention was made, it would have been obvious to one having ordinary skill in the art that the rate at which data can be transmitted is directly proportional to the amount of power. Therefore Schiff explicitly suggests wherein the steps of sensing the received power level of the received data and determining the second data rate are performed by the second transceiver.

Regarding claim 50, Schiff discloses the limitations of the base claims and further suggests adjusting the power by a predetermined amount depending on the measured received power of a signal **(column 6 lines 14-31)**.

At the time the invention was made, it would have been obvious to one having ordinary skill in the art that the rate at which data can be transmitted is directly proportional to the amount of power. Therefore Schiff explicitly suggests wherein the step of transmitting the other data will transmit at the second data rate that is chosen from one of a plurality of predetermined data rates.

Regarding claim 51, Schiff discloses wherein the steps of sensing and determining are performed by the second transceiver **(figure 3 unit 104; figure 3 unit 314; a measurement element in the transceiver 104)**.

Regarding claim 52, Schiff as modified by Javitt disclose the limitations of the base claim being performed within wireless communication systems.

At the time the invention was made, the FCC made available 300 MHz of spectrum for Unlicensed National Information Infrastructure devices located at 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.725-5.825 GHz, for use in wireless communications. Therefore it would have been obvious to one having ordinary skill in the art that data could be transmitted using the 5.725-5.825 GHz band. The motivation being to share spectrum with incumbent services without causing radio interference to those services.

Regarding claim 53, Schiff as modified by Javitt disclose the limitations of the base claim being performed within wireless communication systems.

At the time the invention was made, the FCC made available 300 MHz of spectrum for Unlicensed National Information Infrastructure devices located at 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.725-5.825 GHz, for use in wireless communications. Therefore it would have been obvious to one having ordinary skill in the art that data could be transmitted using one of the 5.25-5.35 GHz and 5.15-5.25 GHz bands. The motivation being to share spectrum with incumbent services without causing radio interference to those services.

Regarding claim 54, Javitt discloses wherein the first power level is greater than the second power level **(figure 1 and column 4 lines 8-15; communication mode 12 has a greater power level than communication mode 11)**.

Response to Argument

5. Applicant's arguments filed September 17, 2007 have been considered but are not persuasive.

The Applicant respectfully traverses that such free and arbitrary controllability of data rate precludes the determination of data rate based upon a received power level. The Examiner respectfully disagrees. Schiff discloses a transceiver including a measurement element of a power of a signal with reference to a signal to noise ratio, where depending on if the measured SNR is lower/higher than a threshold; the transceiver adjusts signal power by predetermined amount known as a gain. Javitt teaches a method of changing transmit power to support a coding gain, such that two communication modes provide different coding gains and thus different data rates.

Therefore as the claims are interpreted in their broadest sense, the Examiner believes that Schiff as modified by Javitt indeed does render the Applicant's invention obvious.

6. Applicant's arguments with respect to the newly added limitations of adaptively adjusting with respect to distance have been considered but are moot in view of new grounds of rejection based upon reference I et al. (US 6,088,335).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12/07/2007

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